

CLAIMS

1. A display system comprising at least one display panel, each said at least one panel comprising:

5 a planar support member comprising a plurality of parallel first bars connected to a plurality of parallel second bars at intersections to form an open mesh having a front surface, a rear surface, and a plurality of openings extending between said surfaces, each said opening being framed by a pair of said first bars and a pair of said second bars;

10 a plurality of lights at respective said intersections, each said light being visible from said front surface and having a pair of terminals; and

a grid of mutually isolated wires located on said rear surface, each said wire being located on a respective said bar and being connected to a respective one of each said pair of terminals located at the intersections on the respective said bar.

2. A display system as in claim 1 further comprising an aperture at each said intersection, each said aperture serving as a socket that receives a respective said light.

3. A display system as in claim 1 wherein said lights are LED's.

4. A display system as in claim 1 wherein said support member further comprises a support base surrounding each said intersection.

20 5. A display system as in claim 4 further comprising a light-transmitting cap fixed to the front surface over each said support base.

6. A display system as in claim 5 wherein each said cap is provided with arms which extend through said openings and engage said rear surface of said support member.

25 7. A display system as in claim 1 wherein said bars are formed with channels that open on the rear surface and receive respective said wires therein.

8. A display system as in claim 7 further comprising a plurality of covers fixed to the support member over respective said intersections.

30 9. A display system as in claim 8 wherein each said cover has a central portion over the intersection and four arms that extend radially into the channels of the first and second bars that are connected at the intersection, each said cover being substantially flush with said rear surface.

10. A display system as in claim 1 wherein said support member further comprises a circumferential frame surrounding said open mesh.

11. A display system as in claim 10 wherein said frame is provided with channels which can carry said wires in bundles for distribution to said grid.

5 12. A display system as in claim 10 further comprising a cross member extending across said circumferential frame between an adjacent pair of said first or second bars.

13. A display system as in claim 1 wherein said rear surface of said support member is provided with recesses surrounding some of said openings, said
10 panel further comprising floor members which are received in said recesses flush with said rear surface, and at least one electronic module mounted to said floor members.

14. A display system as in claim 13 further comprising a light-transmitting cap fixed to the front surface over each said support base, wherein said
15 cap is provided with arms which extend through said openings and engage said rear surface of said support member, at least some of said arms engaging said floor members to hold said floor members in said recesses.

15. A display system as in claim 1 comprising a plurality of said display panels connected together serially

20 16. A display system as in claim 15 wherein each said panel comprises at least one plug member for connecting to wires on an adjacent said light panel.

17. A display system as in claim 15 wherein at least two said panels are connected by hinges so that said panels can be folded together to form a stack.

18. A display system as in claim 17 wherein said hinges comprise at least
25 one first hinge connecting a first pair of said panels so that said first pair of panels can be folded together with their front surfaces in mutually facing relation, and at least one second hinge connecting a second pair of said panels so that said second pair of panels can be folded together with their rear surfaces in mutually facing relation.

30 19. A display system as in claim 18 wherein each said first hinge is fixed to said front surfaces and designed so that said front surfaces are spaced apart when said panels of said first pair are folded together, and each said second hinge is fixed

to said rear surfaces and designed so that said rear surfaces are spaced apart when said panels of said second pair are folded together.

20. A display system as in claim 15 wherein said panels are modular, at least some of said panels being substantially identical.

5 21. A display system as in claim 15 further comprising a power cord to one of said panels, each serially connected panel being provided with power from said one of said panels.

22. A display system as in claim 21 further comprising a transformer for reducing mains voltage to a low voltage suitable for powering LED's, said
10 transformer being located in said power cord..

23. A display system as in claim 21 wherein said power cord is provided with a plug for inserting in a car's cigarette lighter.

24. A display system as in claim 1 wherein said support member is injection molded plastic.

15 25. A display system as in claim 1 further comprising a controller for driving said lights in a moving display mode in at least one of a horizontal format and a vertical format.

26. A display system as in claim 25 wherein said controller comprises a switch for switching between a vertical format and a horizontal format.

20 27. A display system as in claim 25 wherein said controller is fixed to the rear surface of a first one of said support members.

28. A display system as in claim 15 wherein said first bars represent rows of said lights and said second bars represent columns of said lights, said system further comprising a row driver for driving the rows of all of said panels and a
25 plurality of column drivers for driving the columns of respective panels.